UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
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ANN ARBOR, MICHIGAN 48105-2498

OFFICE OF
AIR AND RADIATION

March 2, 2004 CCD-04-07 (LDV/LDT/MDPV/HDV)

Dear Manufacturer:

Subject: Use of GF-4 Engine Oil in Certification and Fuel Economy Test Vehicles

This letter provides guidance on the use of GF-4 oils in 2005 MY gasoline fueled certification and fuel economy test vehicles.

Background

EPA shares with vehicle manufacturers the objectives of reducing emissions and improving the fuel economy of their products. The International Lubricant Standardization and Approval Committee (ILSAC) recently approved final specifications for GF-4 oils. This new oil classification offers improvements in the areas of engine wear, reduced potential for phosphorous and sulfur poisoning of emission control systems, and fuel economy improvement relative to GF-3 oils which are currently used in the EPA testing process. To achieve these benefits, it is of critical importance to EPA that pre-production vehicles used by a manufacturer in demonstrating compliance with emissions standards, and in measurements of fuel economy, accurately represent the fuel economy and emissions performance of production vehicles in actual use. Therefore, prior to receiving EPA approval for using the new improved performance GF-4 oil classification, a manufacturer should make reasonable efforts to demonstrate that GF-4 oils will be used by the models and under the in-use conditions for which it is recommended.

EPA guidance letter CCD-01-12, dated July 31, 2001, contains the approval criteria which were issued for use of GF-3 5W20, 5W30, and 10W30 viscosity grade oils in certification and fuel economy test vehicles. Subsequent to EPA's approval and American Petroleum Institute (API) licensing/certification of GF-3 oils, several stakeholders expressed concern that not all segments of the oil service sector were aware of the introduction of GF-3 oils, specifically 5W20 GF-3 oil. As a consequence of these concerns and following several meetings with stakeholders, EPA agreed to invite new stakeholder groups, in particular the Automotive Oil Change Association (AOCA), and the Independent Lubricant Manufacturers Association (ILMA) to participate in the Agency's approval process for GF-4 engine oils.

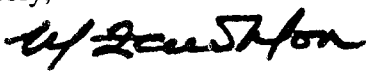
Determination

Based on analysis of the information received before and during the GF-4 stakeholders meeting on February 20, 2004 and the discussions at that meeting, EPA is approving the use of GF-4 oils for testing programs in model years 2005 and later, contingent upon satisfying the criteria listed

in the Attachment. Several of the criteria, specifically the survey followup requirements and the need to plan for an effective rollout of GF-4 oils, are based on comments from stakeholders.

If you have questions concerning this guidance letter, please contact Martin Reineman 734-214-4430.

Sincerely,



Merrylin Zaw-Mon, Director
Certification and Compliance Division
Office of Transportation and Air Quality

Attachment

Attachment to CCD-04-07

Approval Criteria for Use of GF-4 Oils in Certification and Fuel Economy Test Vehicles

1. Owner's Manual Language The manufacturer provides instructions in the Owner's Manual that clearly and unambiguously identify that GF-4 engine oil (identified by the presence of the American Petroleum Institute (API) "Starburst" logo) of a specific viscosity grade (5W20, 5W30, 10W30) is to be used in the vehicle's engine under normal ambient temperature and driving conditions. If the API starburst logo is used in the owner's manual in lieu of reference to GF-4, the manufacturer should include a brief explanation of its meaning. If the Owner's Manual employs a graphical depiction of oil viscosity vs an ambient temperature range, inclusion of any qualifier word, "preferred" for example, associated with the oil viscosity is considered to introduce ambiguity into the instruction, and disqualifies the use of GF-4 engine oil in test vehicles. It continues to be appropriate for a manufacturer to specify the use of a lower viscosity grade in extremely low ambient temperatures where the normally specified oil may not flow adequately. If a vehicle owner wishes to use a synthetic, or partial synthetic oil, EPA does not expect a vehicle manufacturer to preclude use of such an oil if it meets all vehicle manufacturer requirements.

2. Labeling the Oil Filler Cap The manufacturer clearly indicates on the engine oil filler cap, by label or other permanently attached means, that oil of a specific viscosity grade (e.g. 5W30) is to be used in the engine. Alternatively, affixing a permanent easily visible label underhood is also acceptable.

3. Limits on the Sum of 16-hour plus 96-hour Fuel Economy Improvement Factors The engine oil to be used in emissions and fuel economy test vehicles must have a combined fuel economy improvement factor using the ASTM Sequence VI-B (or its replacement procedure), which does not exceed the following limits.

GF-4 5W20	4.8 %
GF-4 5W30	3.8 %
GF-4 10W30	2.4 %

These limits are the sum of the 16-hour and 96-hour limits plus 0.5 percent. The 0.5 percent value represents about two standard deviations of the distribution of fuel economy improvement rates measured by the ASTM procedures. EPA is setting this limit because it is inappropriate for a manufacturer to select a significantly better oil for fuel economy testing than the typical customer will be using in their vehicle in the field.

4. Factory Fill Oil Requirements The manufacturer uses GF-4 oil of the same viscosity rating for the factory fill that it recommends in its production vehicles. Furthermore, the fuel economy performance of the factory fill oil must be equivalent or superior to the oils used in emissions

and fuel economy test vehicles.

5. Oils Available at Dealerships Copies of these materials should be provided to EPA. The manufacturer provides instructions to its dealers for recommended use of GF-4 engine oil of the appropriate viscosity grade. Furthermore, the fuel economy performance of the oils used by its dealers must be equivalent or superior to the oils used in emissions and fuel economy test vehicles.

6. Commitments from Oil Manufacturers to Market GF-4 Oils The vehicle manufacturers obtains, prior to the start of 2005 MY production, commitments from major and independent marketers of the passenger car motor oils that they will manufacture GF-4 engine oil of all specified viscosity grades in sufficient quantity to meet demand in all segments of the oil service/supply network. Vehicle manufacturers may obtain this information jointly through their trade associations. The vehicle manufacturer or trade association shall retain this information for three years and shall provide EPA with copies of this information upon request.

7. Plan for Effective Rollout of GF-4 Oils in the Oil Distribution Service/Supply Network The manufacturer commits to providing EPA an effective rollout plan for the introduction of GF-4 oils prior to the production of 2005 MY vehicles. EPA's expectation is that this rollout plan will consult with all principal oil service providers from dealers to quick oil change facilities to auto repair service providers to the major retailers servicing the do-it-your-self market segments.

8. Follow-up Survey of GF-4 Oil Usage. The manufacturers (or their trade associations) commit to collect the following survey data and submit it to EPA two years after issuance of this letter. These survey data should be based on a comprehensive survey of the oil service/supply network.

a. Acquires and provides to EPA data from oil manufacturers on sales of GF-4 5W20, 5W30, and 10W30 and follow up letters of commitment for the continued promotion of GF-4 engine oil; and

b. Acquires and provides to EPA new data from oil manufacturers on the fuel efficiency of GF-4 5W20, 5W30, and 10W30 using ASTM Sequence VI-B (or its replacement procedure); and

c. Acquires and provides to EPA data on the retail price of GF-4 5W20, 5W30, and 10W30. Prices of partial synthetic and synthetic oils are to be included.